

AMENDMENTS TO THE SPECIFICATION

Please replace the last paragraph on page 2 with the following rewritten paragraph:

--For this purpose, the refrigeration plant, which primarily comprises compressor (1), condenser (2), ~~injection~~expansion valve (3) and evaporator (4), is provided with an additional internal heat exchanger (5), referred to below as IHE (Fig. 7, 8, 9, 10, 11). --

Please replace the first paragraph on page 3 with the following rewritten paragraph:

--This IHE is installed between evaporator (4) and compressor (1), on one side, and between condenser (2) and ~~injection~~expansion valve (3) on the other side (drawing Fig. 8, 9, 10).--

Please replace the last paragraph on page 3 with the following rewritten paragraph:

--The control for which a patent is hereby applied for the first time, as a novel feature, makes use of the measurement variables comprising the liquid temperature of the refrigerant upstream of the ~~injection~~expansion valve (3) and the evaporator pressure (Fig. 7, 8, 9, 10, 11, points 9, 10, 11, 12).—

Please replace the last paragraph on page 4 with the following rewritten paragraph:

--The start of the evaporation process can be defined by the liquid temperature upstream of the ~~injection~~expansion valve (11, 9) and the evaporation pressure (12, 10) (Fig. 7, 8, 9, 10, 11, points 11, 12, 9, 10)--

Please replace the first and second full paragraphs on page 6 with the following rewritten paragraphs:

--It is in this context irrelevant whether the refrigeration system comprises one or a plurality of evaporators (4), one or a plurality of IHEs (5), one or a plurality of

compressors (1), or one or a plurality of ~~injection~~expansion valves (3), and whether or not they are combined to form groups. It is in this context also irrelevant whether or not one or more evaporators (4) are combined into groups with only one or more IHEs (5) (Fig. 10-18, points 9, 10, 13, 14, 15, 16). Any combinations of ~~injection~~expansion valves (3), evaporators (4), IHEs (5) and compressors (1) is therefore possible.--

--It is irrelevant whether the ~~injection~~expansion valves (3) are of mechanical, thermal, electronic or other design and whether they control cyclically, continuously or in some other way. What is crucial is the process and control circuit, with the dependent relationships which have been listed between start of evaporation (11, 12), end of evaporation (13, 19) as a function of the refrigerant liquid entry temperature (21) to the IHE (5), the suction vapor exit temperature (13) from the IHE (5), the state of the refrigerant (wet steam (19) or superheated suction vapor (13)) on leaving the evaporator (19) and entering (20) the IHE (5), which in one case is operated as a second evaporator stage with subsequent high suction vapor superheating (13) and in another case, in the same plant, is operated as a pure heat exchanger for superheating the suction vapor (13). In this context, it is also irrelevant whether an external supercooler stage (25) connected upstream of the IHE (5) is connected to or disconnected from the process.--

Please replace the third paragraph on page 8 with the following rewritten paragraph:

-- A novel feature of our invention is that the expansion valve (3) used, which is installed outside or inside the evaporator, controls the refrigerant liquid temperature (11) before it enters the ~~injection~~expansion valve (3).--

Please replace the second paragraph on page 10 with the following rewritten paragraph:

--Liquefiers (2), evaporators (4), IHEs (5), refrigerant compressors (1), ~~injection~~expansion valves (3), refrigerants, refrigeration auxiliary substances and oil.--

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Please replace the fourth paragraph on page 10 with the following rewritten paragraph:

--When fitting the ~~injection~~expansion valve (3) upstream of the evaporator (4), the measured value for limiting suction vapor is taken off at the suction line leading to the refrigerant compressor (1). The measured valves for the refrigerant liquid temperature (11) and the evaporator entry pressure (12) are used to control the evaporation (17, 19).--